

Probe E-010

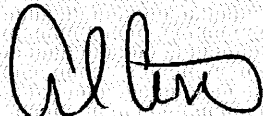
SN: PCT003

Manufactured:
Calibrated:

November 4, 2002
January 3, 2003

Calibrated for the IDX System

PCTEST Calibration Laboratory

Approved By: 
Alfred Cirwithian
Vice President Engineering

Calibration is performed according to IEEE Std. P1528-200X, Sec. 7 Draft 6.5 (2001)
and all test equipment used are traceable to U.S. NIST.



Calibration Laboratory

6660-B Dobbin Road
Columbia, Maryland 21045 USA

Calibration Summary

Model: E-010

S/N: PCT003

OFFSET (cm)	ANGLE (deg)
0.24	54.73

Tissue Type	Frequency (MHz)	Dielectric Constant ϵ_r	Conductivity (S/m) σ	Conversion Factor g_x, g_y, g_z
Brain	835	40.00	0.91	7.20
Brain	1880	40.20	1.41	4.05
Brain	2440	39.34	1.77	8.80
Brain	5300	37.10	4.84	3.20
Brain	5800	36.00	5.28	2.30
Muscle	835	55.70	0.98	7.70
Muscle	1900	53.90	1.48	4.40
Muscle	2440	52.30	1.99	9.90
Muscle	5300	48.80	5.43	3.45
Muscle	5800	48.50	6.05	2.50

Frequency (MHz)	Isotropy	
	%	dB
835	3.49	0.15
1880	5.35	0.23
2440	4.02	0.17
5300	4.85	0.21
5800	4.93	0.21

Boundary Effect < 2%, 2.6 mm from probe tip to phantom

Diode Compression Point: 76 mV

Environmental Conditions:

Temperature: 23.34 °C

Relative Humidity: 34%

Barometer: 100.1 kPa

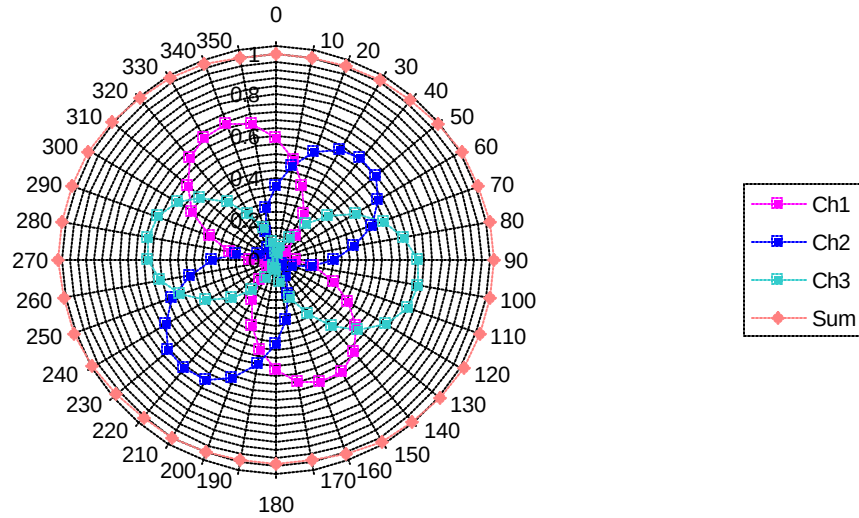
This probe was calibrated under the IEEE Std 1309-1966, *IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas*, from 9 kHz to 40 GHz.

CALIBRATED BY: DATE: 01/15/03

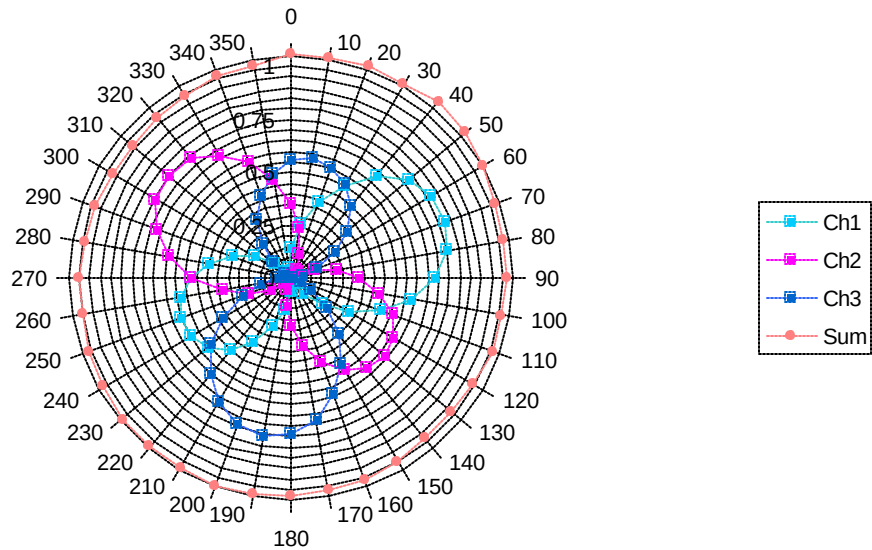
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835 MHz Calibration (PCT003)



1880 MHz Calibration (PCT003)



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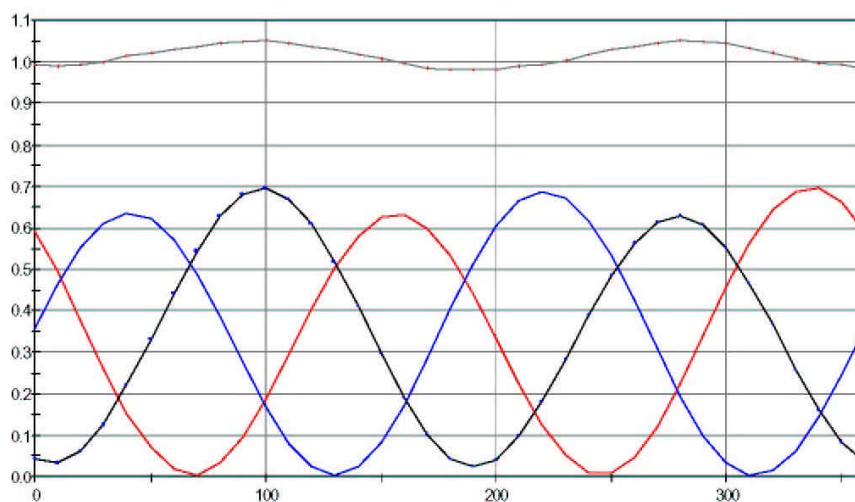
Test Equipment



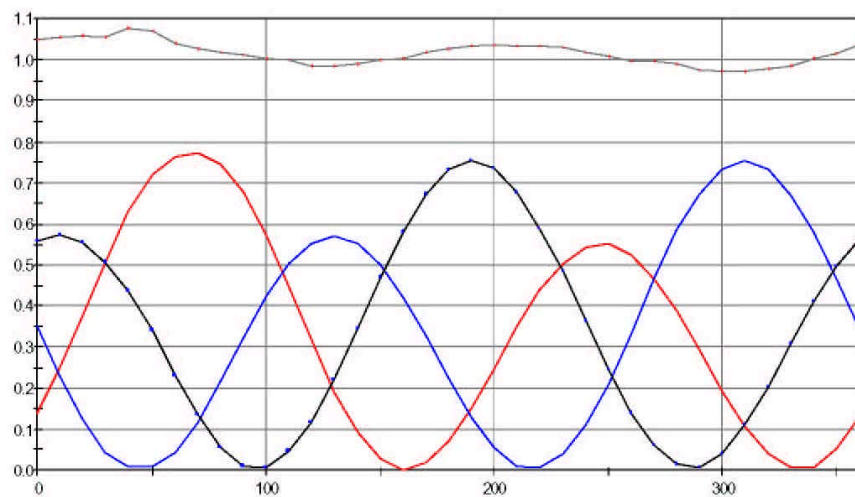
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TEM Calibration Plot
Date: 3-Jan-03 05:19:17 pm
Probe Name: PCT003
Frequency: 835
Sensitivity: Ch1: 2.439 Ch2: 2.706 Ch3: 2.822 mV/(mW/cm²)
Isotropy: 3.49% 0.15 db Min=0.981 Max=1.051



TEM Calibration Plot
Date: 3-Jan-03 05:52:39 pm
Probe Name: PCT003
Frequency: 1880
Sensitivity: Ch1: 4.794 Ch2: 5.895 Ch3: 5.327 mV/(mW/cm²)
Isotropy: 5.35% 0.23 db Min=0.971 Max=1.078



CALIBRATED BY: DATE: 01/15/03

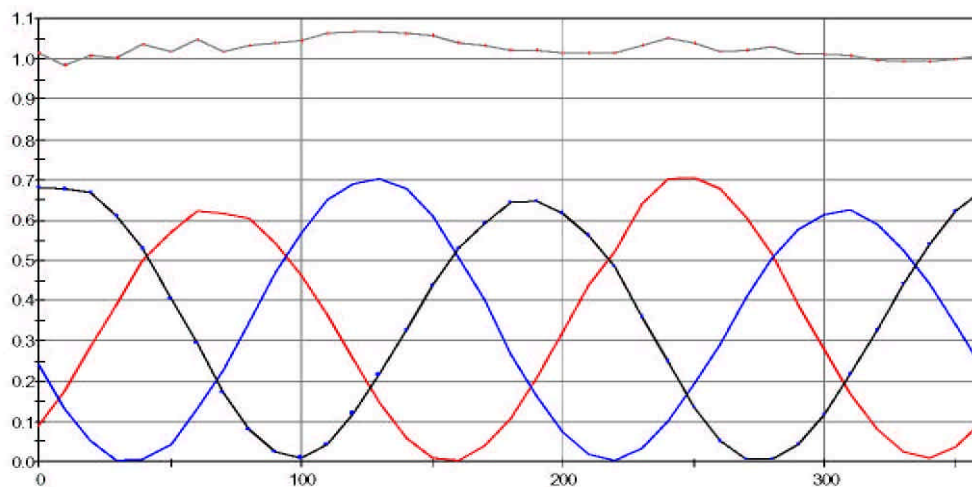


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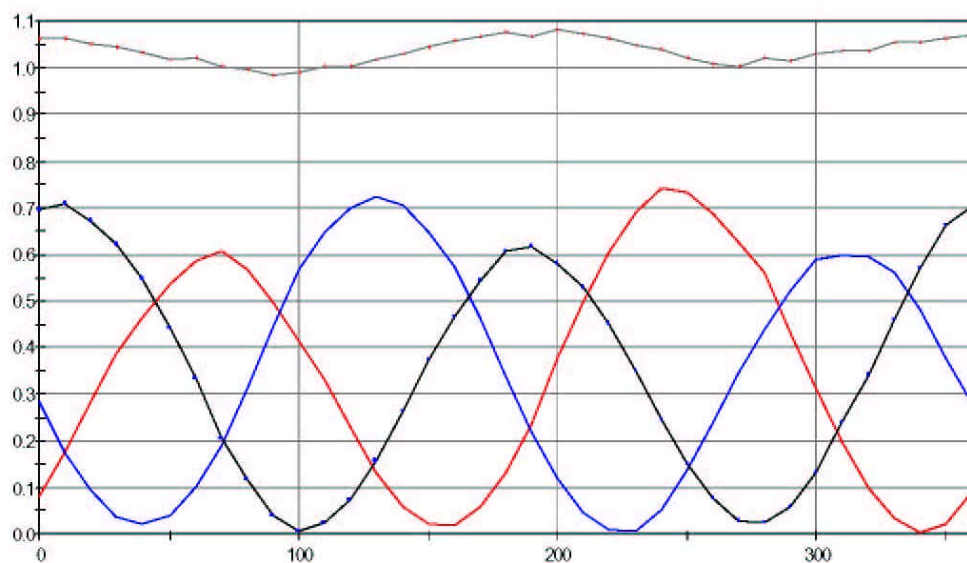
TEM Calibration Plot
Date: 3-Jan-03 10:10:11 am
Probe Name: PCT003
Frequency: 2440

Sensitivity: Ch1: 2.075 Ch2: 2.820 Ch3: 2.456 mV/(mW/cm²)
Isotropy: 4.02% 0.17 db Min=0.985 Max=1.066



TEM Calibration Plot
Date: 3-Jan-03 10:31:24 am
Probe Name: PCT003
Frequency: 5300

Sensitivity: Ch1: 1.939 Ch2: 2.177 Ch3: 2.062 mV/(mW/cm²)
Isotropy: 4.85% 0.21 db Min=0.984 Max=1.081



CALIBRATED BY: DATE: 01/15/03

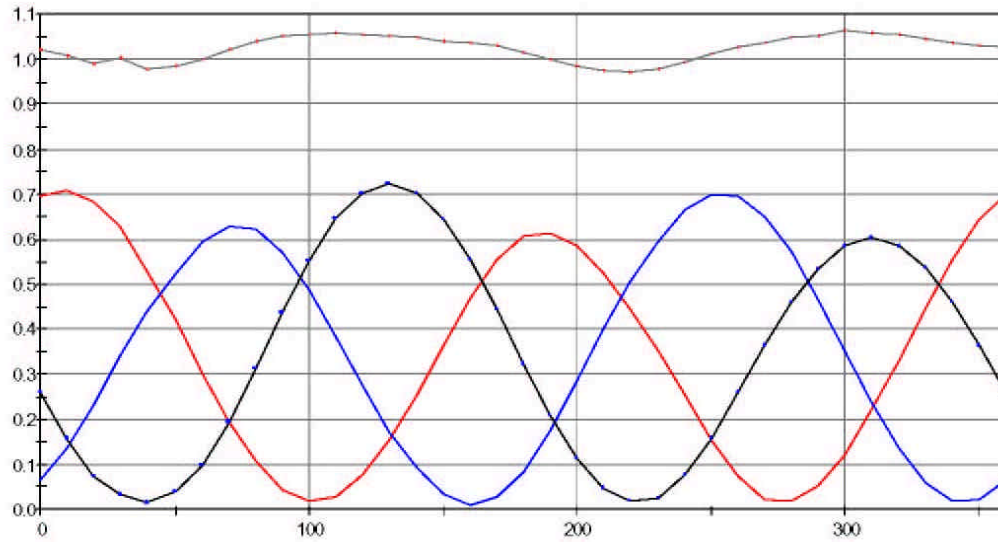


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TEM Calibration Plot
Date: 3-Jan-02 12:06:18 pm
Probe Name: PCT003
Frequency: 5800

Sensitivity: Ch1: 0.6759 Ch2: 0.8082 Ch3: 0.7596 mV/(mW/cm²)
Isotropy: 4.93% 0.21 db Min=0.973 Max=1.082



CALIBRATED BY: DATE: 01/15/03